

CLAIMS

1 1. On computer readable media, a computer program set for
2 running in a J2EE environment including an application server and
3 message-driven beans, said program set comprising:

4 software agents, each of which incorporates a respective
5 message-driven bean;

6 configuration data external to said software agents for
7 determining dependencies among said software agents so that an
8 output of a first of said software agents can serve as an input to a
9 second of said software agents; and

10 an agent server for implementing said agents and said
11 dependencies, said agent server being coupled to said application
12 server, said software agents, and said configuration data.

1 2. A computer program set as recited in Claim 1 wherein said
2 software agents include an invoker agent for receiving task requests
3 from a client external to said agent server.

1 3. A computer program set as recited in Claim 2 wherein said
2 invoker agent selects said second agent for executing a task
3 specified in said task request.

1 4. A computer program set as recited in Claim 3 wherein said
2 invoker selects said second agent as a function of said configuration
3 data.

1 5. A computer program set as recited in Claim 3 wherein said
2 invoker agent determines said second agent has a prerequisite for
3 executing said task, said invoker agent determining whether or not
4 said prerequisite is met by said request and

5 if said prerequisite is met, invoking said second agent, and
6 if said prerequisite is not met, invoking said first agent of said
7 agents, said third agent being invoked to meet said prerequisite.

1 6. A computer program set as recited in Claim 5 wherein said
2 invoker agent selects said first agent as a function of said
3 configuration data.

1 7. A computer program set as recited in Claim 5 wherein said
2 first agent invokes said second agent once said prerequisite is met.

1 8. A computer program set as recited in Claim 2 further
2 comprising a database, said invoker agent storing said request in
3 said database.

1 9. A computer program set as recited in Claim 8 wherein each of
2 said agents stores its status in said database.

1 10. A computer program set as recited in Claim 1 wherein said
2 agent server provides for configurable error handling, said
3 configuration data specifying configurations for said error handling.

1 11. A computer-implemented method comprising:
2 a first software agent incorporating a first message-driven bean
3 receiving a first message requesting a second software agent
4 incorporating a second message-driven bean to achieve a goal;
5 said first software agent examining configuration data external
6 to said first and second software agents to determine if said second
7 software agent has any prerequisites that are not met by said first
8 message;
9 if not, said first software agent invoking said second software
10 agent by sending a second message to said second software agent;
11 and
12 if yes, said first software agent examining configuration data
13 external to said first and second software agents to identify a third
14 software agent incorporating a third message-driven bean that
15 meets a prerequisite of said second software agent that is not met
16 by said request and then invokes said third software agent by
17 sending a third message to it.

1 12. A method as recited in Claim 11 wherein, if, when it is
2 determined that said second software agent has prerequisites that
3 are not met by first message, if said prerequisites are also not met
4 by said third software agent, said third software agent invoking a
5 fourth software agent incorporating a fourth message-driven bean
6 agent that meets another prerequisite of said second software
7 agent.

1 13. A method as recited in Claim 11 wherein, if, when it is
2 determined that said second software agent has prerequisites that
3 are not met by first message, if said prerequisites are also not met
4 by said third software agent, said first software agent also invoking
5 a fourth software agent incorporating a fourth message-driven bean
6 agent that meets another prerequisite of said second software
7 agent, said fourth software agent being invoked in parallel with said
8 third software agent.